Paradigms, frames of world vision

The history of sciences constitutes the lucid look that it carries on its progress. Paradigms are thought frames that allow some questions and answers; 5 great paradigms punctuate the pondering; appeared successively, yet they coexist; the last one, where all is relation, evokes the world soul and world psyche.

In 1962, was published Thomas Kuhn's book 'The structure of scientific revolutions'; analysing the Copernic revolution putting the sun in the centre of the sky instead of the Ptolemaic geocentric system, it introduced the word of paradigm. Since then the word has been largely resumed and sweetened.

What is a paradigm?

A paradigm is a set of questions and answers acceptable by a community. Such is the definition given by Thomas Kuhn. A paradigm rests on a non-rational choice and it is within it that various theories, arguments or models face one another and develop. This choice rests often on implicit assumptions, a more or less elaborated world vision or a philosophical principle.

Today, one thinks that the Ptolemaic system described poorly the movement of the celestial bodies, yet it achieved that at the price of weird curves –epicycloids - and this did not ease the calculus. But the hiatus was elsewhere: have the planets a movement conform to their nature (Aristotle), or has one to keep only to the apparent movement of the planers?

It is gradually that the new paradigm was accepted and not because of the precision of the calculus; the question was rather: do facts suffice or the recourse to philosophy, to God, to the scriptures is it necessary? Copernic or Galileo community increased with young thinkers at the detriment of those who stood by the religious or philosophical principles.

Various paradigms

One may list various paradigms that we use still despite us; each is resumed by a motto, eases some use and has its limits.

Animist paradigm: "Spirit resides in things"
This paradigm helps to practice empathy with all sensitive beings; that is called mystical participation (shamanism) with nature, fairies, subtle beings, etc. But then some spirits can be called by sorcerers: if some cows die, it could be because of an evil eye of the neighbour. Then for attracting their good graces, one has to make sacrifice to the gods.
Is this point of view so far away? For your smartphone to work does not have you to pay a subscription fee, to offer a sacrifice to the god 'telephone operator'? The corporate culture is it not too a spirit?

The antique paradigm: "Bodies have a movement conform to their nature"
The nature spirits relocated with time and became qualities, goddesses and gods. Zeus reigned into Olympus and monotheist religions and states appeared; with the abstract Idealism – search for the pure ideas behind sensitive forms – thought rose up to their abstract models, Plato's pure ideas. Aristotle tried to establish general principles for the changes to which natural bodies are submitted. One of these principles is enunciated as: "All bodies have a

movement conform to their nature", nature centred on the earthly existence and our Earth is the centre of the universe. The scriptures support this geocentric point of view, commonly widespread, since "Joshua stopped the course of the sun". Ptolemy with its system resumed the astronomical doctrine of that time and this set persisted until the Renaissance.

Geocentric rimes with egocentric; "The human being is the measure of all things"; the limitation is well perceived but also the current extent of this point of view.

The objective paradigm: "The object is independent".

So at the Renaissance, appears a new paradigm: only the ascertainable facts – evidences – matter and, following Descartes, one may doubt of everything. One acts rationally with an argued, rigorous thought. The subject handles objects while remaining outside. Thus if I do not find my keys, it's not because an evil spirit would have hidden them, yet where are they? They can't disappear.

Object = Brute fact
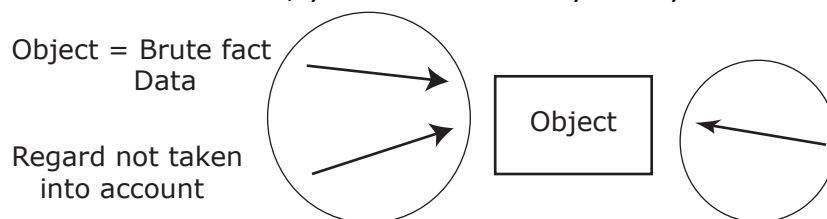Data

Regard not taken
into account

Object

Figure 1: Objective vision

Yet this objective world is cold, inert, maintained at a distance, the subject, life and spirit are not any more appropriate. The only question in a pinch is how to do, but there is not any more a why: one lives and that's all.

"Facts are facts" one hears sometimes. Yet *fact* is a past participle that means made. Experts can modify this fact, thus a net income can evolve according to the depreciation rate, the provision for risk or the investment; this is called fiscal optimization. A photo does not describe a neutral fact; it depends of the point of view, of the field depth and of the chosen angle.

The systemic paradigm: "All interacts"

It is the quantum mechanics which shook up the vision of the objective world, for one can't know the state of a particle, observe a wave or measure a system without interfering with it. Then emerges gradually the importance of relations: the ones and the others interact, between individuals, but also with systems, that are sets of stable and structured interactions. I interact with the world, I am a part of it, yet one follows procedures; for buying on the Internet, one follows the planned procedure, formatted, piped; the server interacts with the computer, the phone, the user.
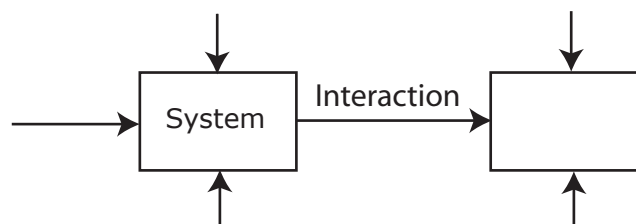
System | Interaction

Figure 2: Systemic vision

The world is evolving, but the pattern of the system remains unchanged. It remains in the repetitive, in great number. Innovation stays on the margin.

One knows something only by interaction; this interference can remain negligible with a neutral interaction or distort the on-going process with an expectation, heaviness or a bias that will close possibilities. Fake news are such a caricature distorting the social reality, each view amplifying the distortion.

The relational paradigm: "All is relation"
Mathematics make a call to abstract thinking and the idea of relationship has been generalized in the theory of categories, invented by Eilenberg and Mac Lane in 1945. A category is a set of arrows; each arrow goes from a source to a goal and these sources and goals are not elements besides but are identified with an identity loop; that loop is a neutral element for the composition of arrows: this means that in composing an arrow with this loop one finds again the same arrow. Neutral? Thus for the addition, 0 is the neutral element for $0+n = n$ whatever the number n.
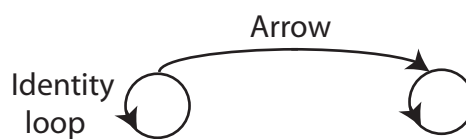

Figure 3: Relational identity

In a category everything is relation, for identity itself is represented by an arrow that composes with other arrows. Systemic vision distinguishes two notions: systems and interactions; here there is only one: relation. Some arrows may superimpose these pure identities; the identity relation compose then with reflexive relations in a structured set and with other systems, that means other clusters of relations around a pure relation to oneself – this relation can be called the Self. As a whole, this network of relations could be interpreted as the *anima mundi*, the world soul.
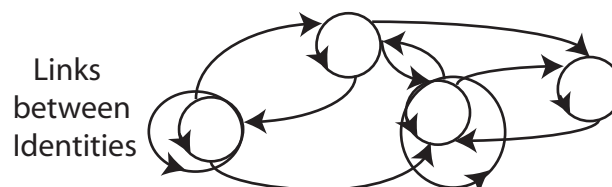

Figure 4: Network of arrows

A model based on this paradigm
Moreover, if one applies the categorical view to matter and if one accepts the idea that a black hole is surrounded by a luminous film (according to general relativity), in rotation furthermore, one gets a conception – a model – very close to what says the tradition about the soul, and what we could check about it.

But the category may be enriched: others arrows may be added, either between two different units or in starting and coming back on the same unit: then they structure this unit and provides a content to it. One may take the identity arrow - this return to oneself - for the soul and then all the arrows start from the self and arrive there. This can be interpreted thus: I am in relation with my memories, with my body, with my expectations. So a set of reflexive loops around the identity describes the Ego – I - and the arrows describe the

interactions of the personality with itself or with others. This network of arrows could then represent the *world psyche*.

NETWORK OF RELATIONS

Relational identity
Relations to oneself,
 to one's memories
to one's expectations
Relationship with the other

Relations to oneself

Relational identity
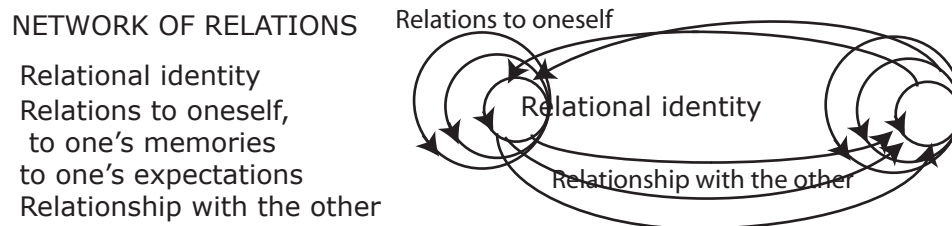
Relationship with the other

Figure 5: World psyche

The more identity refines, purifies, the more is it easy to change. If I identify myself to a job, I become depressed in changing the sector of activity; if I am pure relation to myself, pure consciousness, I can build new relationships, get other perceptions, develop new perspectives. This is called ascesis or detachment. Categorical view opens a beautiful prospect to psychology.

Is there some danger? Sure, there is a difficulty: so many relations, perceptions, possibilities do exist that it is impossible to catch them all. Already, the systemic view could show many interactions, but the systems were relatively spotted. Here in the relational view, everything is possible and can result in a novelty, but these relations are they not a cloud of midges? Thus to talk about a contract or about a group of well known individuals – such is like this, such other like that – is far more economical for the thought than to believe that these people interact or that they exert relationships – detectable? – with themselves or with others. What can give the overall direction, point to an innovation? How to navigate? The concrete mind can loose itself, but this paradigm can describe radiance, research and innovation.

And this richness has a cost!

The intensional paradigm: "Everything has its raison d'être"

The self-relational paradigm seems the most completed; yet whence do come these identities, these pure relations? The research in computer science begins to talk about intention; then is sketched an intensional paradigm: "Everything has its raison d'être". The units which are pure relation without content have a raison d'être, that what assumes this paradigm.

Beware: this philosophical axiom is not yet accepted by a community; this trend does exist in the computer science research, but it remains nowadays a sketch as a general paradigm. One is talking here of intension, with an S and not with a T: it's not about a conscious intent, willed by a thinker, but about an inner inherent tension, to be discovered.

Indeed, one may always assume such an intension – following Leibniz who enunciated the principle of sufficient reason – yet what does bring this hypothesis? What would be if not the proof, at least a clue of its existence? That what this hypothesis brings is that the units of the network - the existing – does not come from nothing; they have an origin, an inflow, an inner tension that makes them exist.

Which clue? As for a human being, one can search such clues before birth and before death: that which provokes the appearance or the withdrawal of someone. But one can discern some needs that make appear some ecological practices, some new gestures, some horizons that open; there also there is no hazard: one has to search for why do these innovations happen. And this search

can lead to reveal this original factor, to participate to this tension and to create in line with this founding inflow.

   The danger is extreme; one may always lay down an intention and claim that it is a raison d'être; then one could justify any custom, any excess, any abuse. A great sagacity and a great restraint are necessary for revealing the energetic, decisive factor animating the existence of some being.

Cohabitation

   We see it, each paradigm has its advantages and disadvantages; they are choices suggesting a frame for actions. To think to resonate with the life of your bank account can surprise you, but won't change the amount of it. To think to interact with your bank advisor may ease the communication; to think that your expenses and income depend on your vision may help you to change your perspective, to feel less anxious, but the balance won't change for that.
These paradigms overlap; an accountant can thus sign himself (herself) before trying to score a goal, a doctor touching wood to bring luck; the less one has a grip on events, the more one appeals to a mysterious power, and why not?
Sometimes, it is more simple, faster to keep to an objective vision, sometimes it is more sensitive to communicate with spirits, fairies or entities of living beings; often the recognition of interactions is useful at the condition to select some of them. Sometimes, the help is more efficient in the inner light than by any speech.

Summary table of paradigms

Paradigm	Motto	Effect	Danger
Animist	Spirit is within things	Mystical participation	Sorcery
Antique	Conform movement	Theoretical stability	Egocentrism
Objective	The object is independent	Rationality	Coldness, distance
Systemic	All interacts	Flows, processes	Repetitive, piped
Relational	A1ll is relation	Conceptual unity	Great number
Intensional	Everything has its raison d'être	Creative agreement	Justification

Conclusion

   A paradigm is a filtering window on the world, a frame where some things, forces and factors can be grasped, spotted, observed and where others remain fuzzy, fleeting, undefined.
   The systemic paradigm describes the adaptation of systems to their environment, the relational paradigm enables to describe cohesion, then the intensional paradigm would introduce the dynamism. The 3 qualities of a system, the 3 facets of pure consciousness, the 3 aspects of life would then be understandable, admitted and acknowledged.
   The study of paradigms enables to get a larger understanding of human evolution with steps or overlaps; it answers to a need of clarity. Ideas infuse gradually a society. It's a movement we can support through the network of pure consciousness; let us observe how we see the world at each moment: mechanical operation, interacting with others or with machines, or tuning in, resonating, emitting the inner light; and we know it is not easy. We are a part of the anima mundi and, together, we strengthen the global intension and we help to answer to the question "What makes us aware?"
   Then we tune into this source, assimilate and pour out this current.

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